**10. Write a C program that illustrates two processes communicating using shared memory.**

[20A91A05CS@Linux ~]$ vi os10.c

#include<stdio.h>

#include<stdlib.h>

#include<unistd.h>

#include<sys/shm.h>

#include<string.h>

int main()

{

int i;

void \*shared\_memory;

char buff[100];

int shmid;

shmid=shmget((key\_t)2345, 1024, 0666|IPC\_CREAT); /\*creates shared memory segment with key 2345, having size 1024 bytes. IPC\_CREAT is used to create the shared segment if it does not exist. 0666 are the permisions on the shared segment\*/

printf("Key of shared memory is %d\n",shmid);

shared\_memory=shmat(shmid,NULL,0); //process attached to shared memory segment

printf("Process attached at %p\n",shared\_memory); /\*this prints the address where the segment is attached with this process\*/

printf("Enter some data to write to shared memory\n");

read(0,buff,100); //get some input from user

strcpy(shared\_memory,buff); //data written to shared memory

printf("You wrote : %s\n",(char \*)shared\_memory);

}

**Output:**

**[20A91A05CS@Linux ~]$ cc os10.c**

**[20A91A05CS@Linux ~]$ ./a.out**

**Key of shared memory is 163845**

**Process attached at 0xb7719000**

**Enter some data to write to shared memory**

**hello world**

**You wrote : hello world**

**11. Write C program to create a thread using pthreads library and let it run its function.**

#include<unistd.h> //header file for sleep

#include<stdio.h>

#include<stdlib.h>

#include<pthread.h>

void \*mythread(void \*vargp)

{

sleep(1);

printf("HELLO WORLD!! ·\n");

return NULL;

}

int main()

{

pthread\_t tid;

printf("Before thread\n");

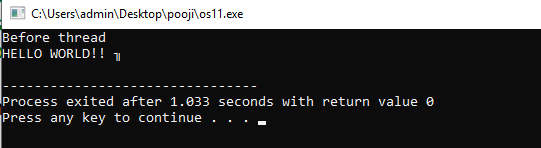
pthread\_create(&tid,NULL,mythread,NULL);

pthread\_join(tid,NULL);

exit(0);

}

**Output:**

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